CLAIMS

, W	\setminus
30%	1
77	2

3

4

1

3

1

2

3

4

5 6

7

8

1.—A method of generating compiler products in a compressed form, said method comprising:

compressing a portion of compiler information to obtain compressed compiler information; and

producing a compressed compiler product based on at least the 5 compressed compiler related information. 6

- A method as recited in claim 1, wherein the portion of the compiler 2. information being compressed by said compressing includes symbol names.
- 3. Amethod as recited in claim 2, wherein said compressing operates to reduce the length of a plurality of the symbol names using a differential encoding scheme.
- A method as recited in claim 2, wherein said compressing comprises: 4.

identifying a symbol name within the compiler information that is encoded in an extended format encoding;

determining a differential encoding for the symbol name, the differential encoding having a reduced-size format as compared to the extended format; and

replacing the extended format encoding for the symbol name in the compiler information with the differential encoding.

- A method as recited in claim 4, wherein said compressing further 5. 1 comprises: 2
- determining a symbol name identifier; and 3
- attaching the symbol name identifier to the differential encoding. 4
- A method as recited in claim 5, wherein the symbol name identifier is a 1 container reference to indicate a container name associated with at least one 2 of the symbol names.

3

4



- 7. A method as recited in claim 1, wherein the source program is written in a programming language selected from a group consisting of Ada, C++,
- Fortran, Pascal, and Java.
- 1 8. A method as recited in claim 1, wherein the compressed compiler
- 2 related product is an object code file or a source browser information file.
- 9. A method as recited in claim 1, wherein the compressed compiler
- 2 related product is\debugger information.
- 10. A method of generating symbol names in an uncompressed form, the
- 2 symbol names being associated with compiler information, said method
- 3 comprising:
 - identifying a compressed symbol name being associated with compiler
- 5 information;
- obtaining information relating to the compressed symbol name; and
- decompressing the compressed symbol name based on the
- 8 information relating to the compressed symbol name to obtain a symbol name
- 9 in an uncompressed form.
- 1 11. A method as recited in claim 10, wherein said obtaining of information
- further comprises obtaining information referenced by a symbol reference that
- is included in the compressed symbol name, the symbol reference providing a
- 4 reference to a base symbol that is associated with the symbol name that is
- 5 represented by the compressed symbol name.
- 1 12. A method as recited in claim 11, where in the base symbol is a
- 2 container of the symbol that is represented by the compressed symbol name.
- 1 13. A compilation system suitable for compilation of source programs, said
- 2 compilation system comprising: an enhanced compiler suitable for generation
- of enhanced compiler products, wherein the enhanced compiler compiles a
- 4 source program to produce the enhanced compiler products with a reduced

5 6 7

8

1

2

3

4

5

6

7

1

3

4

size in comparison with conventional compiler products produced by conventional compilers; and

at least one enhanced non-compiler component that understands and utilizes the enhanced compiler products.

- 1 14. A compiler system as recited in claim 13, wherein reduction of size of
- the enhanced compiler product is up to 40 percent of sizes of conventional
- 3 compiler products produced by conventional compilers.
- 1 15. A compiler system as recited in claim 13, wherein the enhanced
- 2 compiler product is a compiler related product selected from a group
- consisting of an object file, an executable file, debugging information and
- 4 browser information.
 - 16. A computer readable media including computer program code for generating compiler products in a compressed form, said computer readable media comprising:
 - computer program code for compressing a portion of compiler information to obtain compressed compiler information; and
 - computer program code for producing a compressed compiler product based on at least the compressed compiler related information.
 - 17. A computer readable media as recited in claim 16, wherein the compiler information being compressed by said compressing includes symbol names.
 - 18. A computer readable media as recited in claim 16, wherein said computer program sode for compressing operates to reduce the length of a plurality of the symbol names using a differential encoding scheme.
- 1 19. A computer readable media as recited in claim 18, wherein said 2 compressing comprises:
 - computer program code for identifying a symbol name within the compiler information that is encoded in an extended format encoding;

Wy Control of the Con

Atty. Dkt. No.: SUN1P380/P4501

1

2

3

5

6

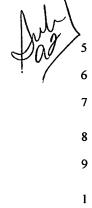
7

8

9

10

11



computer program code for determining a differential encoding for the symbol name, the differential encoding having a reduced-size format as compared to the extended format; and

computer program code for replacing the extended format encoding for the symbol name in the compiler information with the differential encoding.

- 20. A computer readable media as recited in claim 16, wherein the
- 2 enhanced compiler related product is a compiler related product selected
- from a group consisting of an object file, executable file, debugging
- 4 information, and browser information.
 - 21. A computer readable media including computer program code generating symbol names in an uncompressed form, the symbol names being associated with compiler information, said computer readable media comprising:
 - computer program code for identifying a compressed symbol name being associated with compiler information;
 - computer program code for obtaining information relating to the compressed symbol name; and
 - computer program code for decompressing the compressed symbol name based on the information relating to the compressed symbol name to obtain a symbol name in an uncompressed form.